



May 10, 2006

Mr. Nabil S. Fayoumi  
U. S. EPA - Region 5  
77 West Jackson Boulevard (SR-6J)  
Chicago, Illinois 60604-3590

**Re: Sauget Area 2 Site – October 3, 2002 Unilateral Administrative Order  
(UAO) Groundwater Operable Unit  
Monthly Report; April 1 - April 30, 2006 Reporting Period**

Dear Nabil:

Attached is the Monthly Report for the Sauget Area 2 Site October 3, 2002 Unilateral Administrative Order (UAO) - Groundwater Operable Unit. This submittal is in fulfillment of the monthly reporting requirements of the UAO, Section XII, paragraph 62, Progress Reports. This report is for the period April 1 – April 30, 2006.

Sincerely,

A handwritten signature in black ink, appearing to read "Steven D. Smith". The signature is fluid and stylized, with the first and last names being more prominent.

Steven D. Smith  
Project Coordinator

cc: Ken Bardo, - U. S. EPA  
Mayor Sauget - Sauget, IL  
Sandra Bron – IEPA  
Mike Coffey - USFWS  
Village of Sauget – c/o P. H. Weis & Associates (Attn: Brian Nelson)  
Mayor Frank Bergman – Cahokia  
L. Glen Kurowski - Monsanto  
Cathleen Bumb – Solutia  
Linda Tape - Husch & Eppenberger  
Richard Williams – Solutia

## **Sauget Area 2 Site - Sauget, Illinois**

### **October 3, 2002 UAO – Groundwater Operable Unit**

#### **Status Report**

**Date of Report:** May 10, 2006  
**Period Covered:** April 1 - April 30, 2006

#### **Work Performed During the Reporting Period**

##### **General Site Work**

- During the Pre-Final Inspection conducted on June 28, 2005, the one item identified as requiring completion before the Final Inspection was a pressure test on the discharge pipeline. That test was successfully completed on July 14, 2005 and on July 19, 2005 the Agency was requested by e-mail to complete a Final Inspection and issue a Construction Complete notice. At a meeting held on January 12, 2006, it was agreed that a draft of the Final Completion Report would be submitted to the Agency and that submission was made on February 17, 2006.
- Comments on the Operations and Maintenance Plan, which was submitted to the Agency on June 21, 2005, were received on September 20<sup>th</sup>. Responses to those comments were submitted on April 10, 2006, together with a revised O&M Plan.

##### **Groundwater Treatment**

- Interim Operating Period (IOP) III began on February 1, 2006 and was originally scheduled to end on April 30, 2006. However, the system was shut down for most of the month of April (see below) and since the intention of IOP III is to obtain additional operating data over a wide range of river stages, the Agency was requested to extend IOP III for at least one month, to May 31, 2006. The request was approved on April 27<sup>th</sup>.
- For the entire month of April, the system was operated to maintain the total pumping rate equal to the computed inflow rate, based on the average of the gradients measured in two pairs of piezometers placed immediately upgradient of the Site R landfill. The control system was programmed to operate wells EW-1 and EW-3 at the same pumping rate, with well EW-2 shut down for the majority of the month.

- The power supply failed on April 2<sup>nd</sup> at about 4:00 pm. The system was shut down as a safety measure until the mains supply was restored. This occurred the following morning and the system was put back into operation at about noon on April 3<sup>rd</sup>. On April 4<sup>th</sup>, the control system shut the pumps down because the computed groundwater flow rate was zero (i.e., the groundwater model predicted no flow towards the river due to the high river level). This condition persisted through the end of April.
- The results for the third quarter (December 2005) groundwater samples of the performance monitoring wells are being validated and the validated results will be submitted to the Agency in May.
- Analytical results for the first quarter 2006 groundwater samples were received in April, as were the first 2006 semiannual surface water and sediment samples. These data are being validated.
- Water level and pumping data for the month of April are attached.

### **Schedule**

The Agency is currently reviewing various submissions to determine if construction is complete.

### **Submittals During Reporting Period**

- Responses to Agency comments on the draft O&M Plan, together with a revised plan, were submitted on April 17<sup>th</sup>.

### **Work Scheduled for Next Reporting Period**

- Continue IOP III.
- Submit validated results from the third quarter groundwater performance monitoring samples.
- Complete validation of the first quarter 2006 groundwater samples from the performance monitoring wells and the first 2006 semiannual surface water and sediment samples.

## **PUMPING DATA**

		PUMPING RATE					SWL
Date/Time		Computed Q	Total Q	EW-1 Q	EW-2 Q	EW-3 Q	
04/01/2006	Daily Average	299.76	300.73	150.36	0.00	150.38	385.27
04/02/2006	Daily Average	195.23	148.94	74.05	0.85	74.04	386.42
04/03/2006	Daily Average	134.20	56.25	0.00	56.25	0.00	387.56
04/04/2006	Daily Average	27.85	41.55	0.00	41.55	0.00	389.36
04/05/2006	Daily Average	0.00	0.00	0.00	0.00	0.00	390.94
04/06/2006	Daily Average	0.00	2.83	0.94	1.00	0.89	390.32
04/07/2006	Daily Average	0.00	0.00	0.00	0.00	0.00	392.01
04/08/2006	Daily Average	0.00	0.00	0.00	0.00	0.00	394.39
04/09/2006	Daily Average	0.00	2.73	1.08	0.85	0.80	395.61
04/10/2006	Daily Average	0.00	0.00	0.00	0.00	0.00	395.41
04/11/2006	Daily Average	0.00	0.00	0.00	0.00	0.00	395.02
04/12/2006	Daily Average	0.00	0.00	0.00	0.00	0.00	394.98
04/13/2006	Daily Average	0.00	2.85	0.81	1.00	1.04	394.95
04/14/2006	Daily Average	0.00	0.00	0.00	0.00	0.00	394.93
04/15/2006	Daily Average	0.00	0.00	0.00	0.00	0.00	394.97
04/16/2006	Daily Average	0.00	0.00	0.00	0.00	0.00	395.00
04/17/2006	Daily Average	0.00	0.00	0.00	0.00	0.00	395.27
04/18/2006	Daily Average	0.00	0.00	0.00	0.00	0.00	395.41
04/19/2006	Daily Average	0.00	0.00	0.00	0.00	0.00	395.68
04/20/2006	Daily Average	0.00	0.00	0.00	0.00	0.00	395.81
04/21/2006	Daily Average	0.00	0.00	0.00	0.00	0.00	395.94
04/22/2006	Daily Average	0.00	0.00	0.00	0.00	0.00	395.84
04/23/2006	Daily Average	0.00	0.00	0.00	0.00	0.00	395.70
04/24/2006	Daily Average	0.00	0.00	0.00	0.00	0.00	395.57
04/25/2006	Daily Average	0.00	0.00	0.00	0.00	0.00	395.52
04/26/2006	Daily Average	0.00	0.00	0.00	0.00	0.00	395.46
04/27/2006	Daily Average	0.00	4.00	0.00	4.00	0.00	395.17
04/28/2006	Daily Average	0.00	0.00	0.00	0.00	0.00	394.53
04/29/2006	Daily Average	0.00	0.00	0.00	0.00	0.00	393.90
04/30/2006	Daily Average	0.00	0.00	0.00	0.00	0.00	393.45

		GROUNDWATER LEVELS											
Date/Time		PZ-5U	PZ-5D	Delta	PZ-6U	PZ-6D	Delta	PZ-7U	PZ-7D	Delta	PZ-8U	PZ-8D	Delta
04/01/2006	Daily Average	386.08	385.82	-0.26	385.71	385.66	-0.05	385.85	385.42	-0.42	385.81	385.46	-0.36
04/02/2006	Daily Average	386.28	386.12	-0.15	385.94	385.96	0.02	386.03	385.67	-0.36	386.02	385.78	-0.24
04/03/2006	Daily Average	386.37	386.29	-0.09	386.01	386.02	0.01	386.09	385.75	-0.34	386.11	385.93	-0.18
04/04/2006	Daily Average	386.51	386.56	0.06	386.12	386.13	0.01	386.22	385.88	-0.34	386.26	386.26	0.00
04/05/2006	Daily Average	386.75	386.92	0.16	386.34	386.35	0.01	386.43	386.12	-0.31	386.53	386.76	0.23
04/06/2006	Daily Average	386.95	387.07	0.12	386.51	386.53	0.02	386.61	386.30	-0.30	386.73	386.94	0.21
04/07/2006	Daily Average	387.11	387.33	0.22	386.62	386.65	0.03	386.72	386.41	-0.31	386.85	387.19	0.34
04/08/2006	Daily Average	387.28	387.68	0.40	386.73	386.75	0.02	386.79	386.51	-0.28	387.01	387.64	0.63
04/09/2006	Daily Average	387.58	388.10	0.53	386.98	387.00	0.02	387.06	386.79	-0.27	387.34	388.20	0.86
04/10/2006	Daily Average	387.83	388.38	0.55	387.21	387.23	0.03	387.24	387.00	-0.24	387.60	388.52	0.93
04/11/2006	Daily Average	388.00	388.54	0.53	387.40	387.46	0.06	387.40	387.20	-0.20	387.80	388.71	0.91
04/12/2006	Daily Average	388.12	388.64	0.52	387.48	387.54	0.06	387.55	387.31	-0.24	387.90	388.80	0.90
04/13/2006	Daily Average	388.35	388.87	0.52	387.71	387.75	0.04	387.78	387.53	-0.25	388.13	389.03	0.90
04/14/2006	Daily Average	388.57	389.08	0.51	387.94	388.00	0.06	387.98	387.75	-0.23	388.35	389.23	0.88
04/15/2006	Daily Average	388.70	389.21	0.50	388.07	388.12	0.06	388.11	387.89	-0.22	388.48	389.35	0.87
04/16/2006	Daily Average	388.87	389.39	0.52	388.24	388.30	0.06	388.28	388.06	-0.22	388.64	389.50	0.86
04/17/2006	Daily Average	388.97	389.48	0.50	388.34	388.38	0.04	388.39	388.15	-0.24	388.74	389.59	0.85
04/18/2006	Daily Average	389.16	389.65	0.49	388.50	388.56	0.06	388.57	388.34	-0.23	388.92	389.84	0.92
04/19/2006	Daily Average	389.26	389.77	0.51	388.60	388.66	0.05	388.69	388.45	-0.24	389.03	389.93	0.90
04/20/2006	Daily Average	389.43	389.96	0.53	388.78	388.83	0.05	388.86	388.61	-0.25	389.20	390.11	0.91
04/21/2006	Daily Average	389.58	390.09	0.51	388.89	388.93	0.05	389.00	388.75	-0.24	389.35	390.25	0.89
04/22/2006	Daily Average	389.66	390.23	0.57	389.08	389.15	0.06	389.16	388.90	-0.26	389.52	390.37	0.86
04/23/2006	Daily Average	389.82	390.26	0.44	389.16	389.21	0.05	389.26	389.01	-0.25	389.60	390.47	0.87
04/24/2006	Daily Average	389.91	390.35	0.44	389.31	389.35	0.04	389.42	389.14	-0.28	389.74	390.54	0.80
04/25/2006	Daily Average	390.01	390.45	0.43	389.40	389.45	0.05	389.52	389.25	-0.27	389.82	390.61	0.79
04/26/2006	Daily Average	390.16	390.56	0.40	389.53	389.59	0.05	389.62	389.37	-0.25	389.93	390.69	0.76
04/27/2006	Daily Average	390.15	390.63	0.48	389.59	389.65	0.06	389.72	389.45	-0.26	389.99	390.68	0.69
04/28/2006	Daily Average	390.27	390.59	0.31	389.68	389.74	0.06	389.78	389.52	-0.26	390.07	390.62	0.55
04/29/2006	Daily Average	390.33	390.63	0.30	389.78	389.83	0.05	389.89	389.63	-0.26	390.13	390.62	0.49
04/30/2006	Daily Average	390.35	390.61	0.25	389.82	389.90	0.07	389.93	389.67	-0.27	390.15	390.50	0.36

		GROUNDWATER LEVELS							
		PZ-1_OUTSID	PZ-1_INSIDE	PZ-2_OUTSID	PZ-2_INSIDE	PZ-3_OUTSID	PZ-3_INSIDE	PZ-4_OUTSI	PZ-4_INSIDE
Date/Time		E		E		E		DE	
04/01/2006	Daily Average	384.71	384.93	383.93	385.07	384.21	384.38	384.50	384.61
04/02/2006	Daily Average	385.46	385.52	385.07	385.54	385.34	384.92	385.19	385.18
04/03/2006	Daily Average	386.01	385.82	386.05	385.69	386.26	384.97	385.66	385.44
04/04/2006	Daily Average	386.94	386.02	387.60	385.89	387.70	385.22	386.52	385.70
04/05/2006	Daily Average	387.94	386.40	389.16	386.27	389.20	385.64	387.50	386.08
04/06/2006	Daily Average	387.82	386.59	388.66	386.47	388.76	385.87	387.44	386.30
04/07/2006	Daily Average	388.64	386.69	390.06	386.57	390.06	385.93	388.13	386.39
04/08/2006	Daily Average	389.93	386.73	392.27	386.62	392.11	385.97	389.30	386.51
04/09/2006	Daily Average	390.81	387.12	393.50	386.98	393.27	386.39	390.22	386.98
04/10/2006	Daily Average	390.90	387.41	393.36	387.24	393.16	386.68	390.39	387.24
04/11/2006	Daily Average	390.84	387.58	393.02	387.46	392.90	386.86	390.36	387.41
04/12/2006	Daily Average	390.88	387.68	392.93	387.53	392.82	386.92	390.41	387.50
04/13/2006	Daily Average	390.99	387.98	392.97	387.77	392.88	387.24	390.56	387.78
04/14/2006	Daily Average	391.13	388.19	392.95	388.03	392.87	387.46	390.70	388.00
04/15/2006	Daily Average	391.20	388.31	393.00	388.14	392.94	387.56	390.77	388.09
04/16/2006	Daily Average	391.34	388.47	393.03	388.32	392.97	387.74	390.91	388.27
04/17/2006	Daily Average	391.50	388.54	393.31	388.38	393.24	387.77	391.04	388.33
04/18/2006	Daily Average	391.68	388.79	393.45	388.59	393.39	388.08	391.27	388.59
04/19/2006	Daily Average	391.88	388.87	393.68	388.68	393.62	388.13	391.43	388.67
04/20/2006	Daily Average	392.03	389.06	393.83	388.87	393.77	388.31	391.60	388.86
04/21/2006	Daily Average	392.19	389.22	393.95	389.01	393.90	388.44	391.73	389.03
04/22/2006	Daily Average	392.21	389.36	393.86	389.20	393.81	388.65	391.77	389.16
04/23/2006	Daily Average	392.19	389.46	393.72	389.27	393.71	388.73	391.75	389.28
04/24/2006	Daily Average	392.18	389.62	393.60	389.42	393.62	388.89	391.76	389.40
04/25/2006	Daily Average	392.17	389.71	393.59	389.51	393.59	388.97	391.79	389.49
04/26/2006	Daily Average	392.18	389.79	393.53	389.63	393.57	389.05	391.85	389.58
04/27/2006	Daily Average	392.09	389.90	393.30	389.69	393.34	389.17	391.74	389.69
04/28/2006	Daily Average	391.81	389.97	392.71	389.79	392.81	389.21	391.44	389.71
04/29/2006	Daily Average	391.53	390.09	392.17	389.91	392.29	389.36	391.17	389.81
04/30/2006	Daily Average	391.29	390.06	391.74	389.91	391.87	389.32	390.87	389.80